

### REMARKS

Upon entry of the present amendment, claims 6 and 12-25 are pending in this application. Claims 6, 16 and 21-22 are amended herein. Support for the amendments to claim 6 can be found, for example, on page 5, lines 9-19, page 6, lines 2-3 and 23-25 and page 7, lines 23-25. Support for the amendments to claim 16 can be found, for example, on page 30, lines 16-17. Support for the amendments to claims 21 and 22 can be found, for example, in claim 6 as filed. No new matter is added.

### CLAIM REJECTIONS

#### **35 U.S.C. § 112, Second Paragraph Rejections**

Claims 6 and 12-25 have been rejected under 35 U.S.C. §112, second paragraph for being indefinite. Specifically, the Examiner has rejected claims 6, 14, 15, 21, 22, 24 and 25 for the recitation of “said recombinase”. According to the Examiner, that the antecedent basis for this claim is unclear because claim 6 uses the phrase “a recombinase” twice. (See Office Action at page 3). Applicants traverse. Claim 6 recites a “recombinase gene” and a “recombinase”. Because the subsequent claims recite “the recombinase” as opposed to “the recombinase gene”, Applicants submit that these claims refer to the term “recombinase” in claim 6, rather than “recombinase gene”. As such, Applicants contend that the antecedent basis in the term “said recombinase” is clear. Thus, this rejection should be withdrawn.

The Examiner also asserted that claim 6 was indefinite because it was unclear whether the signal sequences must be operably linked to the recombinase gene. In response, Applicants have amended claim 6 to clarify that the signal sequences must be operably linked to the recombinase gene. Therefore, this rejection should also be withdrawn.

The Examiner also asserted that claims 12, 13, 16-20 and 23 were indefinite because they depended from claim 6. As noted above, Applicants submit that claim 6, as amended, is not indefinite or unclear. Therefore, claims 12, 13, 16-20 and 23 which depend from claim 6, are also neither unclear nor indefinite. Therefore, this rejection should be withdrawn.

The Examiner also asserted that claim 16 is indefinite for reciting that the tissue of the plant is edible or inedible because the claim does not further specify what organism is eating the plant. Applicants have amended claim 16 to specify that the edible portion of the plant is a fruit

and the inedible portion is not a fruit. Thus, Applicants submit that claim 16, as amended, is not indefinite.

Finally, the Examiner also asserted that claims 21 and 22 are indefinite because there is no antecedent basis. Applicants have herein amended claims 21 and 22 to replace this phrase with language supported by the language of claim 6. Thus, Applicants submit that claims 21 and 22, as amended, are not indefinite. Therefore, this rejection should be withdrawn.

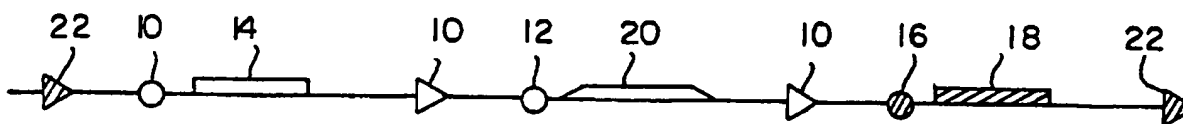
For the above mentioned reasons, Applicants submit that claims 6 and 12-25 are definite and request that these rejections be withdrawn.

### **35 U.S.C. § 102 Rejections**

#### **1. Hodges**

Claims 6, 12, 17-23 and 25 have been rejected under 35 U.S.C. §102(a or e) as being anticipated by Hodges *et al.* U.S. Patent No. 5,929,307 ("Hodges"). Applicants traverse.

Applicants submit that Hodges does not teach all of the limitations of claim 6 as presently amended, and thus, cannot anticipate claim 6, or its dependent claims 12, 17-23 and 25. According to the Examiner the construct shown in Figure 1D of Hodges describes all of the limitations of claim 6. Figure 1D of Hodges is reproduced below for the Examiner's convenience.



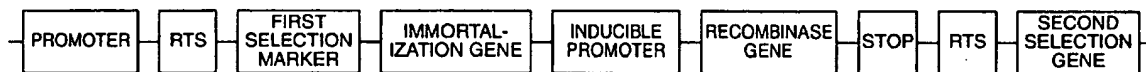
*FIG. 1d*

The present invention discloses in one embodiment a first nucleic acid molecule comprising a recombinase gene operably linked to an expression control sequence and signal sequences recognized by a recombinase operably linked to the recombinase gene and a second nucleic acid molecule comprising a target gene and signal sequences recognized by the same recombinase as required by claim 6. The Hodges construct describes a nucleic acid molecule with a target gene (20) and signal sequences (10) recognized by the recombinase encoded by the

recombinase gene (18). In contrast, to the claimed invention, the recombinase gene (18) in the Hodges construct is not linked to signal sequences (22) recognized by that *same* recombinase. The Hodges construct operates by allowing a plant transformed with this construct to not be “male sterile”.<sup>1</sup> Specifically, upon induction of the inducible promoter (16), the recombinase gene (18) expresses recombinase which interacts with the signal sequences flanking the target gene (20) which is a restorer gene, removing this gene.<sup>2</sup> This allows the suicide gene (14) to induce sterility.<sup>3</sup> In the Hodges construct, the recombinase encoded by the recombinase gene (18) does not interact with the signal sequences flanking the whole construct (22). In fact, if the recombinase encoded by the recombinase gene (18) also interacted with the signal sequences flanking the whole construct (22), the whole construct would be removed, preventing the expression of the suicide gene (14) and thus rendering a non-sterile male plant and a non-functional construct. Accordingly, Hodges does not teach all of the limitations of claim 6, or its dependent claims 12, 17-23 and 25. Applicants request that this rejection be withdrawn.

## 2. Anderson

The Examiner has rejected claims 6, 17-23 and 25 under 35 U.S.C. § 102(b) as being anticipated by Anderson *et al.* U.S. Patent No. 5,629,159 (“Anderson”). The Examiner asserts that the construct shown in Figure 6B teaches all of the limitations of claim 6. Figure 6B is reproduced below. Applicants respectfully disagree.



**FIG. 6B**

Applicants have amended claim 6 to clarify the patentable distinctions between the instant invention and the above-cited reference. Specifically, claim 6 has been amended to require that the signal sequences of the first and second nucleic acids must not be the same sequences. The Anderson construct only has one set of recombinase target sites (RTS), that the Examiner asserted were equivalent to sets of signal sequences. In contrast, the claimed invention requires two different sets of signal sequences for each of the two nucleic acids. Thus, Anderson

<sup>1</sup> Hodges at column 9, lines 1-2.

<sup>2</sup> *Id.* at lines 2-5.

<sup>3</sup> *Id.* at column 8, lines 57-58.

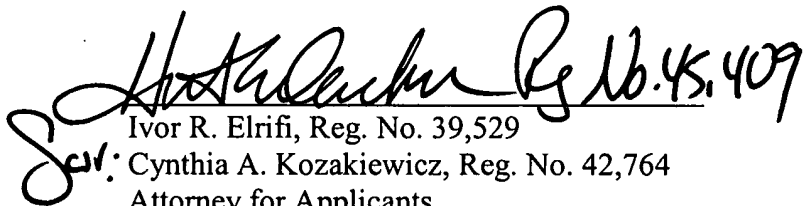
APPLICANTS: Silver et al.  
SERIAL NUMBER: 10/789,480

does not teach all of the limitations of claim 6, or its dependent claims 12, 17-23 and 25.  
Applicants request that this rejection be withdrawn.

### CONCLUSION

On the basis of the foregoing amendment and remarks, Applicants respectfully submit that the pending claims are in condition for allowance and a Notice of Allowance for the pending claims is respectfully requested. If there are any questions regarding this application that can be handled in a phone conference with Applicants' Attorneys, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

  
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